

DRILLING CONTRACTOR:

Clinton Hurt



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

OIL AND GAS WELL PERMIT APPLICATION

2) Operator's Well No. KEM #412
3) API Well No. 47 - 035 - 1882
State, County Permit

- 4) WELLTYPE: A Oil Gas
B (If "Gas", Production Underground storage Deep Shallow)
- 5) LOCATION: Elevation: 851 Watershed: Buffalo Lick Road
District: Washington County: Jackson Quadrangle: Ripley
- 6) WELL OPERATOR Kaiser Exploration and Mining Co. (D) DESIGNATED AGENT B. A. Pryce
Address P. O. Box 8 Ravenswood, WV 26164 Address Same
- 7) OIL & GAS ROYALTY OWNER Otho Casto et al
Address 11800 Brook Pk Rd Cleveland, OH 44130
Acreage 47.46
- 8) SURFACE OWNER Same
Address _____
Acreage _____
- 9) FIELD SALE (IF MADE) TO:
Address _____
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Homer Dougherty
Address Linden Rt., Box 3A, Looneyville, WV

- 12) COAL OPERATOR None
Address _____
- 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
Name None
Address _____
- 14) COAL LESSEE WITH DECLARATION ON RECORD:
Name None
Address _____

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JUN 24 1983

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

- 15) PROPOSED WORK: Drill Drill deeper _____ Redrill _____ Fracture or stimulate _____
Plug off old formation _____ Perforate new formation _____
Other physical change in well (specify) _____
- 16) GEOLOGICAL TARGET FORMATION, Devonian Brown Shale
- 17) Estimated depth of completed well, 5073 feet
- 18) Approximate water strata depths: Fresh, 351 feet; salt, _____ feet.
- 19) Approximate coal seam depths: _____ Is coal being mined in the area? Yes No

20) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									Kinds <u>by Rule 15-05</u>
Fresh water	10 3/4"			X		<u>400 250</u>	<u>400 250</u>	150 sks class A to surface	Sizes
Coal								65 sks 50/50 pozmix	
Intermediate	7"			X		2261	2261	100 sks class A	
Production	4 1/2"			X		5073	5073	225 sks 50/50 pozmix	Perforations:
Tubing									Top Bottom
Liners									

- 21) EXTRACTION RIGHTS
Check and provide one of the following:
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)
- 22) ROYALTY PROVISIONS
Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No
If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.
- 23) Required Copies (See reverse side.)

24) Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

Notary: _____ Signed: B. A. Pryce
My Commission Expires _____ Its: General Manager

OFFICE USE ONLY

Permit number 47-035-1882 DRILLING PERMIT Date August 25, 1983
09/08/2023

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)
August 25, 1985

Permit expires _____ unless drilling is commenced prior to that date and prosecuted with due diligence.

Bound: <u>BB</u>	Agent: <u>BB</u>	Plat: <u>BB</u>	Casing: <u>BB</u>	Fee: <u>964079</u>
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[Signature]
Administrator, Office of Oil and Gas



IV-9
(Rev 8-81)

DATE June 16, 1983

WELL NO. KEM #412

State of West Virginia
Department of Mines
Oil and Gas Division

API NO. 47-035-1882

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME Kaiser Exploration and Mining Co DESIGNATED AGENT R. A. Pryce

Address P. O. Box 8, Ravenswood, WV

Address Same

Telephone 273-5371

Telephone _____

LANDOWNER Otho Casto

SOIL CONS. DISTRICT Western

Revegetation to be carried out by Kaiser Exploration and Mining Company (Agent)

This plan has been reviewed by Western SCD. All corrections and additions become a part of this plan: _____

(Date) June 18, 1983

James W. Hughes
(SCD Agent)

ACCESS ROAD

LOCATION

Structure Road Culvert

(A)

Structure None required (1)

Spacing 12" diameter

Material _____

Page Ref. Manual 2:7

Page Ref. Manual _____

Structure Drainage Ditch

(B)

Structure _____ (2)

Spacing Earthen

Material _____

Page Ref. Manual 2:12

Page Ref. Manual _____

Structure Cross Drains

(C)

Structure _____ (3)

Spacing 80', 60', 135'

Material _____

Page Ref. Manual 2:4

Page Ref. Manual _____

All structures should be inspected regularly and repaired if necessary. All commercial timber is to be cut and stacked and all brush and small timber to be cut and removed from the site before dirt work begins.

REVEGETATION

PK
Treatment Area I

Treatment Area II

Lime _____ 4 Tons/acre
or correct to pH _____

Lime Same as Area I Tons/acre
or correct to pH _____

Fertilizer 14-14-14 600 lbs/acre
(10-20-20 or equivalent)

Fertilizer _____ lbs/acre
(10-20-20 or equivalent)

Mulch Hay 2 Tons/acre

Mulch _____ Tons/acre

Seed* 81% Orchard Grass/15% Ryegrass 16 lbs/acre

Seed* _____ lbs/acre

Kentucky 31 Fescue 16 lbs/acre

_____ lbs/acre

Red Clover 8 lbs/acre

_____ lbs/acre

*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X recommended amount.

PLAN PREPARED BY Vincent Wood 09/08/2023

ADDRESS 116 Post Avenue

Ripley, WV 25271

PHONE NO. 372-2709

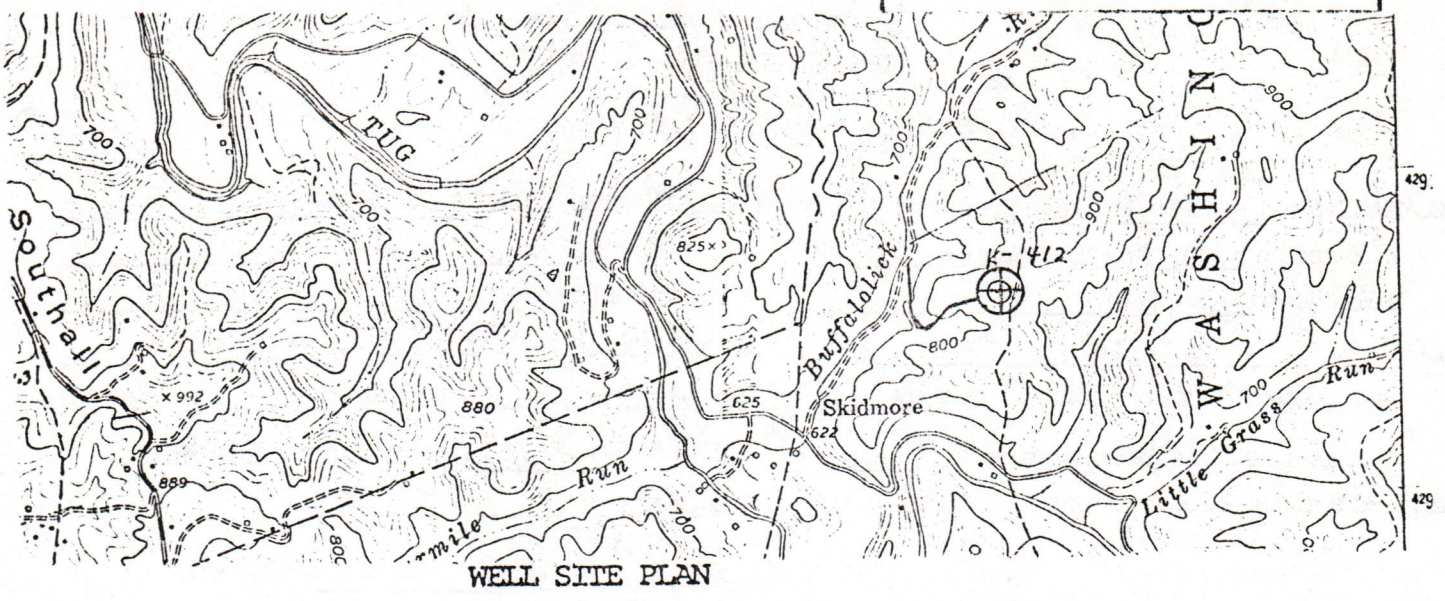
NOTES: Please request landowner's cooperation to protect new seedling for one growing season. Attach separate sheets as necessary for comments.

ATTACH OR PHOTOCOPY SECTION OF INVOLVED TOPOGRAPHIC MAP. QUADRANGLE RIPLEY

LEGEND

Well Site ⊕

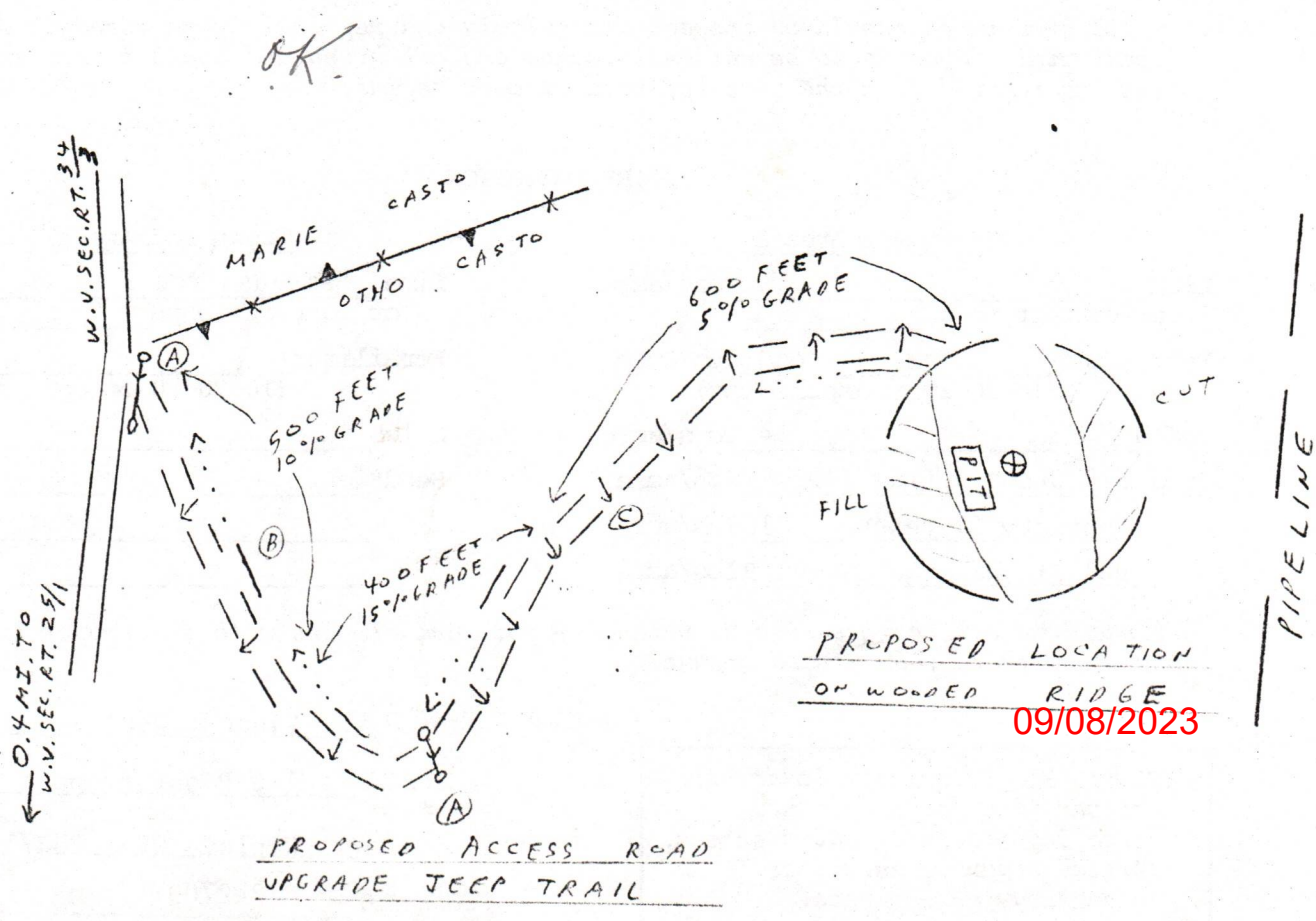
Access Road ———



Sketch to include well location, existing access road, roads to be constructed, wellsite, drilling pits and necessary structures numbered or lettered to correspond with the first part of this plan. Include all natural drainage.

LEGEND

Property boundary	——— ——— ——— ——— ———	Diversion	———/———/———/———/———
Road	== == == == ==	Spring	○ →
Existing fence	—— X —— X ——	Wet spot	⊕
Planned fence	—— / —— / ——	Building	■
Stream	~~~~~	Drain pipe	○ → ○ → ○ →
Open ditch	——— ——— ——— ——— ———	Waterway	⇄ ⇄ ⇄ ⇄



1) Date: June 21, 1983
 2) Operator's Well No. KEM #412
 3) API Well No. 47 State County Permit

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES, OFFICE OF OIL & GAS

NOTICE OF APPLICATION FOR A WELL WORK PERMIT

4) SURFACE OWNER(S) OF RECORD TO BE SERVED

(i) Name Otho Casto
 Address 11800 Brook Pk. Rd.
Cleveland, OH 44130
 (ii) Name Orville & Naomi Casto
 Address 2104 Nash Street
Parkersburg, WV 26101
 (iii) Name _____
 Address _____

5(i) COAL OPERATOR None
 Address _____

5(ii) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Name None
 Address _____

Name _____
 Address _____

5(iii) COAL LESSEE WITH DECLARATION ON RECORD:
 Name None
 Address _____

No. 147829

TO THE PERSON(S) NAMED ABOVE:

- (1) The Application for a well to be plugged, which so describes the well cementing program;
- (2) The plat (surveyor's map);
- (3) The Construction and Reclamation Plan (plug a well), which so describes the reclamation for the site.

THE REASON YOU RECEIVED THIS NOTICE IS THAT YOU ARE THE PERSON(S) NAMED IN THE "TO" FIELD OF FORM IV-2(B) OR FORM 4, DESIGNATED TO TAKE ANY ACTION AT ALL.

Take notice that under Chapter 20, Article 1, West Virginia Code, a person who proposes to file or has filed for a Well Work Permit with the Department of Mines, with respect to a well, and depicted on attached Form I Construction and Reclamation Plan by hand to the person(s) named before the day of mailing or delivery of this notice.

6) EXTRACTION RIGHTS

Check and provide one of the following:
 Included is the lease or contract by which I hold the right to extract.
 The requirement of Code Chapter 20, Article 1, West Virginia Code.

7) ROYALTY PROVISIONS

Is the right to extract, production or other contract or contract for compensation to the owner of the well, or the volume of oil or gas produced therefrom, to be determined by the Department of Mines?

If the answer above is "Yes," you may use Affidavit Form PS Form 3800, Apr. 1976.

See the reverse side for the required copies of the Reclamation Plan.

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
 NOT FOR INTERNATIONAL MAIL
 (See Reverse)

SENT TO		Orville Casto
STREET AND NO.		2104 Nash Street
P.O., STATE AND ZIP CODE		Parkersburg, WV 26101
POSTAGE		\$ <u>37</u>
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	<u>75</u> c
	SPECIAL DELIVERY	c
	RESTRICTED DELIVERY	c
	OPTIONAL SERVICES	
RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	c
	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	<u>60</u> c
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	c
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	c
TOTAL POSTAGE AND FEES		\$ <u>1.72</u>
POSTMARK OR DATE		

following documents:

7-4 if the well is plugged or other work, proposed casing and

and all work is only to be done under control and for

DURING THE APPLICATION OF THE APPLICATION TO TAKE ANY

signed well operating documents, West Virginia Code, attached Application, the plat, and the certified mail or delivered documents) on or

contracts by which (for specifics.)

lease or leases similar provision herently related No

answer is Yes,

questions concerning construction and

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JUN 24 1983

OIL & GAS DIVISION
 DEPT. OF MINES

The truth of the information on the Notice and Application is verified and sworn to and the Notice is signed on behalf of the Well Operator in my County and State by

R. A. Pryce
 this 31st day of June, 1983.
 My commission expires 12-01, 1985.

Keith Ann Halbert
 Notary Public, Jackson County,
 State of West Virginia

WELL OPERATOR Kaiser Exploration and Mining Co.

By R. A. Pryce
 Its General Manager
 Address P. O. Box 8
Ravenswood, WV 26164
 Telephone 304-273-5371

09/08/2023

I N S T R U

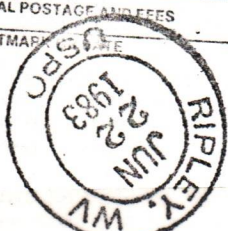
No. 147828

CONCERNING THE LINE ITEMS:

- 1) Date of Notice.
- 2) Your well name and numb
- 3) To be filled out by the
- 4) & 5) Use separate sheet if n
- 4) Surface owner(s) of rec see also Code § 22-4-1k co-owners of interest c in such lands".
- 5(i) "Coal Operator" means a corporation that prop
- 5(ii, iii) See Code § 22-4-20.
- 6) See Code § 22-4-11(c). taining contract(s), t provided below.
- 7) See Code § § 22-4-11(c)

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO		Otho Casto
STREET AND NO		11800 Brook Pk Rd
P.O., STATE AND ZIP CODE		Cleveland, OH 44130
POSTAGE		\$ 37
CONSULT POSTMASTER FOR FEES	CERTIFIED FEE	75¢
	SPECIAL DELIVERY	¢
	RESTRICTED DELIVERY	¢
	OPTIONAL SERVICES	¢
RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	¢
	SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	60¢
	SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
	SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		\$1.72
POSTMARK		

lication. However, common or other section hold interests

ership association or

se(s) or other con- ation in the space

CONCERNING THE REQUIRED COPIES

Filing. Code § 22-4-1k ar copies of the Notice and accompanied by (i) a plat in the forms prescribed by R by Code § 22-4-1k(d) and 23, (iv) unless previously and 22-3-12a, and (v) if owner of any water well o

Service. In addition, se with an interest in the c

PS Form 3800, Apr. 1976

original and required administrator, accom- (ii) a bond in one of other security allowed 2-4-12b and Regulation quired by Code § 22-4-1a(c) Code § 22-4-8a from the proposed well.

ner(s) and the person(s) 22-4-2a, and 22-4-2b.

INFORMATION SUPPLIED UNDER CODE § 22-4-11(d)

IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on the obverse side of this Notice, I depose and say that I am the person who signed the Notice for the Applicant, and that--

- (1) the tract of land is the same tract described in the Application to which this Notice applies, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book Page
Kaiser Exploration and Mining Company	Otho Casto et al	1/8 of prevailing field price	181/79

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

- 4/30/84: Young's Wireline perforated with 20 holes (.41" dia.) 4091' 50.4364'. Lower Brown Shale.
- 5/1/84 Nowsco foam frac. Breakdown pressure was 1500 psig. Pad: 200 BBL foam. Treating pressure was 2500 psig. Used 20/40 sand, 60,000#, Total nitrogen 700 mscf, total fluid was 320 bbls, ISIP: 1340 psig; 5 min SIP: 1200 psig. Lower Brown Shale.
- 5/1/84 Young's Wireline perforated with 24 holes, 3 shots/ft, .41" dia, 2509' to 2517'. Berea.
- 5/1/84 Nowsco foam frac of Berea. Breakdown fluid 500 gal 15% Hcl at 2500 psig. Pad: 200 bbl foam. Treated at 75% quality at 1700 psig. Used 60,000# 20/40 sand. Total nitrogen was 656 mscf; total fluid was 325 bbls; ISIP: 1300 psig; 5 min SIP: 1200 psig. Flow back was through 1/2".

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Soil and Shale			0	270	
Sand			270	330	
Shale			330	357	
Sand			357	412	
Shale			412	424	
Sand			424	445	
Shale and Siltstone			445	1220	
Sand			1220	1336	
Shale and Siltstone			1336	1470	
Sand			1470	1515	
Shale			1515	1766	
Salt Sands			1766	1994	
Big Lime (Greenbrier)			1994	2040	
Shale			2040	2050	
Big Injun Sand			2050	2132	
Shale			2132	2499	
Coffe Shale (Sunbury)			2499	2516	
Berea Sand			2516	2525	S/G
Shale			2525	3770	
Brown Shale			3770	4370	S/g @4150
Shale			4370	4396	
Total Depth			4396		

(Attach separate sheets as necessary)

Kaiser Exploration and Mining Company
Well Operator

By: R. A. P.

09/08/2023

Date: May 7, 1984

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS WELLS DIVISION

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MAY 2 - 1984

INSPECTOR'S WELL REPORT

OIL & GAS DIVISION
DEPT. OF MINES

Permit No. 035 1882

Oil or Gas Well _____
(KIND)

Company <u>Kaiser Exploration</u>	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Address _____	Size			
Farm <u>Otis Casto</u>	16			Kind of Packer _____
Well No. <u>Kem 412</u>	13			
District _____ County <u>Jackson</u>	10			Size of _____
Drilling commenced <u>4 16 84</u>	8 1/4			
Drilling completed <u>4 22 84</u> Total depth <u>4394</u>	6 5/8			Depth set _____
Date shot _____ Depth of shot _____	5 3/16			
Initial open flow _____ /10ths Water in _____ Inch	3			Perf. top _____
Open flow after tubing _____ /10ths Merc. in _____ Inch	2			Perf. bottom _____
Volume _____ Cu. Ft.	Liners Used			Perf. top _____
Rock pressure _____ lbs. _____ hrs.				Perf. bottom _____
Oil _____ bbls., 1st 24 hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Fresh water _____ feet _____ feet	NAME OF SERVICE COMPANY _____			
Salt water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names Hurt Rig #4 Junior Archer

Remarks:

- 4 16 84 Spud Date. Ran 399' set 409' 103/4" csg 9jts cement with 250 sacs noscoe class a 3% cacl 1/4 fflocle.
- 4 20 84 Ran 2247' set 2257' 7" csg cement 150 sacs 50/50 poz 10% salt 1/4lb flocele plus 100 sacs class a 3% cacl plug down 4:00PM
- 4 22 84 TD 4394 Ran 4380 set 4390 feet off 4 1/2" 109jts cement 200 sacs 50/50poz 10% salt 12 1/2 lbs per sac Gibsonite plug down 5:30 PM.
- 4 23 84 Waiting on creek to go down to move.

4 23 84
DATE

[Signature] **09/08/2023**



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DEC 21 1984

OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division
Charleston 25305

FINAL INSPECTION REPORT
INSPECTORS COMPLIANCE REPORT
May 31, 1984

COMPANY Kaiser Exploration & Mining Co. PERMIT NO 035-1882
P. O. Box 8 FARM & WELL NO Otho Casto, KEM-412
Ravenswood, West Virginia 26164 DIST. & COUNTY Washington/Jackson

RULE	DESCRIPTION	IN COMPLIANCE	
		YES	NO
23.06	Notification Prior to Starting Work		
25.04	Prepared before Drilling to Prevent Waste		
25.03	High-Pressure Drilling		
16.01	Required Permits at Wellsite		
15.03	Adequate Fresh Water Casing		
15.02	Adequate Coal Casing		
15.01	Adequate Production Casing		
15.04	Adequate Cement Strength		
15.05	Cement Type		
23.02	Maintained Access Roads		
25.01	Necessary Equipment to Prevent Waste		
23.04	Reclaimed Drilling Pits		
23.05	No Surface or Underground Pollution		
23.07	Requirements for Production & Gathering Pipelines		
16.01	Well Records on Site		
16.02	Well Records Filed		
7.05	Identification Markings		

I HAVE INSPECTED THE ABOVE CAPTIONED WELL AND RECOMMEND THAT IT BE RELEASED:

SIGNED *Joseph Tephah*
DATE 12 20 84

Your well record was received and reclamation requirements approved. In accordance with Chapter 22, Article 4, Section 2, the above well will remain under bond coverage for the life of the well.

T. H. ...
Administrator-Oil & Gas Division

January 23, 1985

DATE

09/08/2023

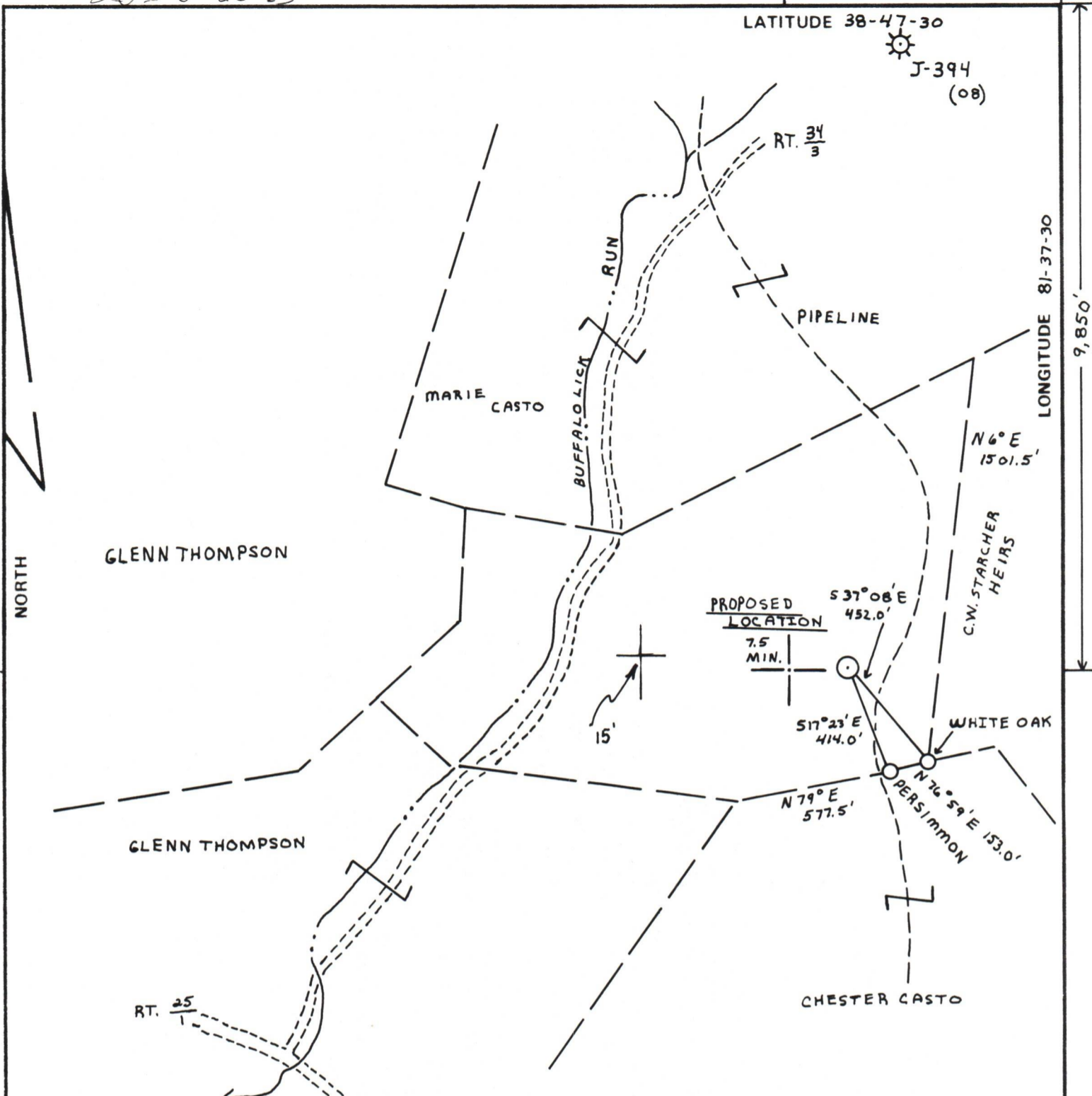
DL 8-23-23

4,075'

LATITUDE 38-47-30



J-394 (08)



FILE NO. 6-26
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION INTER. W.V. RT. 25/1 and 34/3, ELEV. = 622', 2500' SW. of Location

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.

(SIGNED) Vincent W. Wood
 R.P.E. _____ L.L.S. 664

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE JUNE 15, 19 83
 OPERATOR'S WELL NO. KEM 412
 API WELL NO. 47-035-1882
 STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 851' WATER SHED BUFFALO LICK RUN
 DISTRICT WASHINGTON COUNTY JACKSON
 QUADRANGLE RIPLEY
 SURFACE OWNER OTHO CASTO, ET. AL. ACREAGE 47.46
 OIL & GAS ROYALTY OWNER OTHO CASTO, ET. AL. LEASE ACREAGE 47.46
 LEASE NO. 84-04-120
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

09/08/2023

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION DEVONIAN BROWN SHALE ESTIMATED DEPTH 5073'
 WELL OPERATOR KAISER EXPLOR. & MIN. CO. DESIGNATED AGENT KAISER EXPLORATION AND MINING CO.
 ADDRESS P.O. Box 8 ADDRESS P.O. Box 8
RAVENSWOOD, W.V. 26164 RAVENSWOOD, W.V. 26164

FORM IV-6 (8-78) H. T. HALL

JACKIE, 1882